

Feet distant from the Prism ABC, and so figured that it may cause the coloured Light which divergeth from the Prism to converge and meet again at its Focus G, about six or eight Feet distant from the Lens, and there to fall perpendicularly upon a white Paper DE. And if you move this Paper to and fro, you will perceive that near the Lens, as at *de*, the whole solar Image (suppose at *pt*) will appear upon it intently coloured after the manner above-explained, and that by receding from the Lens those Colours will perpetually come towards one another, and by mixing more and more dilute one another continually, until at length the Paper come to the Focus G, where by a perfect mixture they will wholly vanish and be converted into whiteness, the whole Light appearing now upon the Paper like a little white Circle. And afterwards by receding further from the Lens, the rays which before converged will now cross one another in the Focus G, and diverge from thence, and thereby make the Colours to appear again, but yet in a contrary order; suppose at *e*, where the red *t* is now above which before was below, and the violet *p* is below which before was above.

Let us now stop the Paper at the Focus G where the Light appears totally white and circular, and let us consider its whiteness. I say, that this is composed of the converging Colours. For if any of those Colours be intercepted at the Lens, the whiteness will cease and degenerate into that Colour which ariseth from the composition of the other Colours which are not intercepted. And then if the intercepted Colours be let pass and fall upon that compound Colour, they mix with it, and by their mixture restore the whiteness. So

So if the violet, blue and green be intercepted, the remaining yellow, orange and red will compound upon the Paper an orange, and then if the intercepted Colours be let pass they will fall upon this compounded orange, and together with it decompound a white. So also if the red and violet be intercepted, the remaining yellow, green and blue, will compound a green upon the Paper, and then the red and violet being let pass will fall upon this green, and together with it decompound a white. And that in this composition of white the several rays do not suffer any change in their colorific qualities by acting upon one another, but are only mixed, and by a mixture of their Colours produce white, may further appear by these Arguments.

If the Paper be placed beyond the Focus G, suppose at *e*, and then the red Colour at the Lens be alternately intercepted, and let pass again, the violet Colour on the Paper will not suffer any change thereby, as it ought to do if the several sorts of rays acted upon one another in the Focus G, where they cross. Neither will the red upon the Paper be changed by any alternate stopping, and letting pass the violet which crosseth it.

And if the Paper be placed at the Focus G, and the white round Image at G be viewed through the Prism HIK, and by the refraction of that Prism be translated to the place *ry*, and there appear tinged with various Colours, namely, the violet at *v* and red at *r*, and others between, and then the red Colour at the Lens be often stopt and let pass by turns, the red at *r* will accordingly disappear and return as often, but the violet at *v* will not thereby suffer any change. And so by stopping and letting pass alternately the blue at the Lens,